Appendix 3A-5: Water Year 2014 and Five-Year (Water Year 2010–2014) Annual Flows and Total Phosphorus Loads and Concentrations by Structure and Area

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This appendix provides annual flows, total phosphorus (TP) loads, and flow-weighted mean (FWM) TP concentrations by structure and area for Water Year 2014 (WY2014) (May 1, 2013–April 30, 2014) and WY2010-WY2014 (five-year period). **Tables 1** through **5** present this information for the Stormwater Treatment Area (STA) 1 inflow basin and L-8/C-51 Basin/Rustic Ranch; Water Conservation Areas 1, 2, and 3 (WCA-1, WCA-2, and WCA-3); and Everglades National Park (ENP), respectively. Note that the same color font within a table indicates the same source level.

For WY2014, total flows, TP loads, and TP FWM concentrations into the Everglades Protection Area (EPA) are calculated from the total inflows to WCA-1, WCA-2, WCA-3, and ENP, minus that transferred within the EPA through numerous structures: S-10A, S-10C, S-10D, S-11A, S-11B, S-11C, S-12A, S-12B, S-12C, S-12D, S-333–S-334, and S-355A/S-355B. The totals into the EPA are as follows:

- Flow: 2,111.617 acre-feet (ac-ft) in thousands
- TP load: 59,605 kilograms (kg)
- TP FWM concentration: 23 micrograms per liter (µg/L)

For WY2014, total flows, TP loads, and TP FWM concentrations from the EPA for water supply and flood control are calculated from the totals of WCA-1, WCA-2, and WCA-3 from structures S-39, G-300 (negative flow), G-301 (negative flow), G-94A, G-94B, G-94C, G-94D, S-7 (negative flow), S-38, S-34, S-150 (negative flow), S-8 (negative flow), S-31, S-337, S-343A, S-343B, S-344, S-197, and S-334. In addition, the majority of flow exiting the EPA south from ENP is not monitored. The monitored totals from the EPA are as follows:

- Flow: 634.1 ac-ft in thousands
- TP load: 11,598 kg
- TP FWM concentration: 15 µg/L

This appendix provides five-year average annual flows, TP loads, and FWM TP concentrations by area for WY2010 through WY2014. **Tables 6** through **8** present flows, TP loads, and FWM TP concentrations to STAs and diversion from inflow tributaries. **Tables 9** through **11** present flows, TP loads, and FWM TP concentrations for the EPA. Details used to calculate values for each of the five years are presented in this appendix and the 2011-2014 SFERs –Volume I, Appendix 3A-5.

Table 1. WY2014 annual flows, TP loads, and FWM TP concentrations for the STA–1 inflow basin and L-8/C-51 Basin/Rustic Ranch.

Into STA-1 Inflow Basin

Structure	Flow	Phosphorus	
	1000 ac-ft	Load (kg)	FWMC (ppb)
S-5A_P	319.211	70,088	178
S-5A from EAA	*211.377*	*45,609*	*175*
S-5A from East Beach	*15.404*	*9,926*	*522*
S-5A from Lake	*89.429*	*13,921*	*126*
S-5AW from Lake	*0.177*	*28*	*126*
S-5AW from L-8 Basin	*1.940*	*537*	*224*
S-5AS	0.000	0	126
S-5AS from Lake	*0.000*	*0*	*n/a*
S-5AS from L-8 Basin	*0.000*	*0*	*n/a*
G-300	2.890	564	158
G-300 from WCA-1	*2.890*	*564*	*158*
G-301	0.164	30	151
G-301 from WCA-1	*0.164*	*30*	*151*
G-311	0.001	0	104
G-311 from C-51	*0.001*	*0*	*104*
Total	**322.266**	**70,682**	**178**

From L-8/C-51 Basin/Rust Ranch

Structure	Flow	Phosphorus	
	1000 ac-ft	Load (kg)	FWMC (ppb)
S-319	55.271	13,685.786	201
from Lake	*5.961*	*1,014*	*138*
from L-8 Basin/Reservoir	*16.586*	*3,796*	*186*
From S-5AS	*1.234*	*206*	*135*
S-5AS From Lake	*0.933*	*137*	*119*
S-5AS from EAA	*0.130*	*12*	*75*
S-5AS From WCA-1	*0.035*	*3*	*69*
S-5AS From East Beach	*0.038*	*8*	*171*
from C-51W and Wellington	*31.490*	*8,670*	*223*
S-361(Rust Ranch)	10.724	719	54
Total	**65.995**	**14,404**	**177**

From STA-1 Inflow Basin

Structure	Flow	Phosphorus	
	1000 ac-ft	Load (kg)	FWMC (ppb)
S-5AS	29.575	4,644	127
from EAA	*4.310*	*592*	*111*
from East Beach	*0.236*	*93*	*319*
from Lake	*19.338*	*2,830*	*119*
from L-8 Basin	*0.000*	*0*	*n/a*
From WCA-1	*2.369*	*335*	*115*
From G-311	*0.000*	*0*	*n/a*
G-300	9.531	3,327	283
from EAA	*8.012*	*3,219*	*326*
from East Beach	*0.481*	*419*	*706*
from Lake	*0.000*	*0*	*n/a*
from L-8 Basin	*0.000*	*0*	*n/a*
From G-311(C51)	*0.000*	*0*	*n/a*
G-301	5.108	2,207	350
from EAA	*4.269*	*2,101*	*399*
from East Beach	*0.254*	*273*	*871*
from Lake	*0.000*	*0*	*n/a*
from L-8 Basin	*0.000*	*0*	*n/a*
From G-311(C51)	*0.000*	*0*	*n/a*
G-302	227.633	48,835	174
from EAA	*158.364*	*31,685*	*162*
from East Beach	*11.662*	*7,292*	*507*
from Lake	*44.920*	*7,032*	*127*
from L-8 Basin	*1.589*	*426*	*217*
From WCA-1	*0.532*	*28*	*43*
From G-311(C51)	*0.001*	*0*	*0*
G-311	61.475	11,622	153
from EAA	*34.821*	*5,054*	*118*
from East Beach	*2.741*	*1,797*	*531*
from Lake	*21.857*	*3,746*	*139*
from L-8 Basin	*0.351*	*111*	*256*
From WCA-1	*0.034*	*2*	*48*
Total	**333.322**	**70,634**	**172**

Table 2. WY2014 annual flows, TP loads, and FWM TP concentrations for WCA-1 (Refuge).

Into WCA-1

Structure	Flow	Phosphorus	
	1000 ac-ft	Load (kg)	FWMC (ppb)
G-300 & G-301	14.639	5,534	306
G-338	0.004	0	100
S-362 (from STA-1E)	124.518	6,325	41
G-251 (from STA-1W)	32.531	785	20
G-310 (from STA-1W)	208.572	6,260	24
ACME2	0.000	0	n/a
Total	**380.259**	**18,904**	**40**

From WCA-1

Structure	Flow	Phosphorus	
	1000 ac-ft	Load (kg)	FWMC (ppb)
S-10A	130.181	2,376	15
S-10C	129.021	2,890	18
S-10D	69.257	5,741	67
S-39	122.605	3,478	23
G-300	2.890	564	158
G-301	0.164	30	151
G-94A	1.946	73	30
G-94B	2.583	147	46
G-94C	12.765	453	29
G-338	0.003	0	93
G-94D	0.000	0	n/a
Total	**471.414**	15,751	**27**

Table 3. WY2014 annual flows, TP loads, and FWM TP concentrations for WCA-2.

Into WCA-2

Structure	Flow	Phosphorus	
	1000 ac-ft	Load (kg)	FWMC (ppb)
G-436 (from STA-2)	231.686	5,879	21
G-335 (from STA-2)	170.789	3,747	18
STA-2 from EAA	*303.557*	*32,704*	*87*
STA-2 from East Shore	*24.669*	*3,352*	*110*
STA-2-from Lake	*49.741*	*8,170*	*133*
STA-2 Retained	*---*	*-30,267*	*---*
S-7	347.250	5,433	13
from STA-3/4	*239.737*	*4,258*	*14*
From Lake O	*2.353*	*386*	*133*
from EAA	*130.251*	*14,359*	*89*
STA-3/4 Retained	*---*	*-17,103*	*---*
From G-371	*0.007*	*0.390*	*46*
from Lake O	*0.000*	*0*	*n/a*
from EAA	*0.007*	*0*	*46*
S-10A (from WCA-1)	130.181	2,376	15
S-10C (from WCA-1)	129.021	2,890	18
S-10D (from WCA-1)	69.257	5,741	67
N. Springs Improv. District	0.000	0	n/a
Total	**1078.183**	**26,064**	**20**

From WCA-2

Structure	Flow	Phosphorus	
	1000 ac-ft	Load (kg)	FWMC (ppb)
S-7	0.000	0	n/a
S-11A (from WCA-2)	271.363	2,859	9
S-11B (from WCA-2)	284.400	3,378	10
S-11C (from WCA-2)	133.801	1,723	10
S-38	226.785	2,091	7
S-34	42.630	567	11
Total	**958.979**	**10,619**	**9**

Table 4. WY2014 annual flows, TP loads, and TP FWM concentrations for WCA-3.

Into WCA-3

Structure	Flow	Phosphorus	
	1000 ac-ft	Load (kg)	FWMC (ppb)
Non-ECP-L-28, Feeder Canal	178.772	12,842	58
S-140 (from L28 Canal)	*108.403*	*6,235*	*47*
S-190 (from Feeder Canal)	*70.369*	*6,607*	*76*
G-407	0.001	0	99
STA-5/6-south	57.769	1,983	28
From C-139	*39.985*	*9,466*	*192*
S-8	175.359	3,543	16
From STA-3/4	*121.048*	*2,150*	*14*
From Lake O	*29.442*	*4,836*	*133*
From EAA	*128.808*	*8,168*	*51*
From C-139	*13.782*	*1,902*	*112*
From SFCD	*13.854*	*1,306*	*76*
From SSDD	*7.180*	*1,041*	*118*
STA-3/4 Retained		*-8,635*	
From G-373	*1.644*	*162*	*80*
From Lake O	*0.002*	*0*	*133*
From EAA	*1.440*	*131*	*74*
From C-139	*0.080*	*9*	*89*
From SFCD	*0.073*	*6*	*72*
From SSDD	*0.049*	*15*	*242*
STA5/6-North	*34.472*	*1,183*	*28*
From C-139	*23.860*	*5,647*	*197*
S-150	28.423	536	15
from STA-3/4	*19.623*	*349*	*14*
From Lake O	*0.193*	*32*	*133*
From EAA	*10.661*	*1,418*	*108*
STA-3/4 Retained		*-1,400*	
From G-371	*0.000*	*0.011*	*100*
from Lake O	*0.000*	*0*	*133*
from EAA	*0.000*	*0.003*	*59*
G-404 & G-357	118.494	2,257	15
From STA3/4	*81.807*	*1,453*	*14*
From Lake O to G-409	*19.898*	*3,268*	*133*
From EAA	*87.051*	*5,203*	*48*
From C-139	*9.314*	*1,212*	*105*
From SFCD	*9.363*	*832*	*72*
From SSDD	*4.852*	*663*	*111*
STA-3/4 Retained		*-5,836*	
From G-373	*1.111*	*103*	*75*
From Lake O	*0.001*	*0*	*133*
From EAA	*0.973*	*84*	*70*
From C-139	*0.054*	*6*	*84*
From SFCD	*0.050*	*4*	*67*
From SSDD	*0.033*	*9*	*228*
STA5/6-North	*57.769*	*800*	*11*
From C-139	*39.483*	*10,058*	*207*
S-11A (from WCA-2)	271.363	2,859	9
S-11B (from WCA-2)	284.400	3,378	10
S-11C (from WCA-2)	133.801	1,723	10
G-123 (from N. New River)	0.000	0	n/a
Non-ECP-C-11 West	176.194	2,773	13
S-9	*90.053*	*1,625*	*15*
S-9A	*86.140*	*1,148*	*11*
Total	**1424.576**	**31,896**	**18**

From WCA-3

Structure	Flow	Phosphorus	
	1000 ac-ft	Load (kg)	FWMC (ppb)
S-150	1.856	36	16
S-8	0.025	1	19
S-31	0.000	0	n/a
S-337	0.010	0	7
S-343A	33.588	341	8
S-343B	48.601	496	8
S-344	0.000	0	n/a
S-12A	79.795	699	7
S-12B	96.077	602	5
S-12C	241.700	1,868	6
S-12D	313.660	2,981	8
S-333[1]	261.069	4,936	15
S-355A/S355B	0.000	0	n/a
G-357	0.000	0	n/a
G-409	6.271	732	95
Total	**1082.653**	**12,691**	**10**

[1] Value includes S-334 from WCA-3.

Table 5. WY2014 annual flows, TP loads, and TP FWM concentrations for ENP.

Into ENP

Structure	Flow	Phosphorus	
	1000 ac-ft	Load (kg)	FWMC (ppb)
S-12A (from WCA-3)	79.795	699	7
S-12B (from WCA-3)	96.077	602	5
S-12C (from WCA-3)	241.700	1,868	6
S-12D (from WCA-3)	339.366	3,234	8
S-333-S-334 (from WCA-3)[3]	110.832	2,127	16
S-355A/S-355B (from WCA-3)	0.000	0	n/a
Non-ECP-C111 Basin	246.622	1,707	**6**
S-332D	*127.598*	*1,046*	*7*
S-18C	*119.024*	*661*	*5*
Total	**1114.392**	**10,237**	**7**

From ENP

Structure	Flow	Phosphorus	
	1000 ac-ft	Load (kg)	FWMC (ppb)
S-197	6.814	34	4
Total	**6.814**	**34**	**4**

Structures/Locations:
C-139 – C-139 Basin
EAA – Everglades Agricultural Area
East Beach – East Beach Water Control District
East Shore – East Shore Drainage District
ENP – Everglades National Park
Lake O – Lake Okeechobee
Non-ECP-Non Everglades Construction Project
N. New River – North New River
N. Springs Improv. District – North Springs Improvement District
SFCD – South Florida Conservancy District
SSDD – South Shore Drainage District
STA-1E – Stormwater Treatment Area 1 East
STA-1W – Stormwater Treatment Area 1 West
STA-2 – Stormwater Treatment Area 2
STA-3/4 – Stormwater Treatment Area 3/4
STA-5/6 – Stormwater Treatment Area 5/6
WCA-1 – Water Conservation Area 1
WCA-2 – Water Conservation Area 2
WCA-3 – Water Conservation Area 3

Units of Measurement:
ac-ft – acre-feet
kg – kilograms
µg/L – micrograms per liter

Other Abbreviations:
FWMC – flow-weighted mean concentration
NA – not applicable

Table 6. Flow volume budgets to STAs and diversion from inflow tributaries (Kac-ft/year).

Source Apportioned STA Inflows & Diversions							
	WY2010	WY2011	WY2012	WY2013	WY2014	Five-Year Average	Five-Year % STAs/Div
Lake Okeechobee							
Lake through EAA to STAs and Diversions	19.6	47.7	95.6	81.8	168.3	82.6	8%
Lake through L-8 to STAs and Diversions	3.9	12.2	0.5	16.6	6.9	8.0	1%
Total Lake Okeechobee to STAs and Diversions	23.5	59.9	96.1	98.4	175.2	90.7	8%
C-139 Basin							
from C-139 to EAA STAs and Diversions	23.7	19.4	17.8	13.6	23.2	19.5	2%
from C-139 to STA-5/6 and Diversions	174.7	86.9	60.4	59.1	103.3	96.9	9%
Total C-139 Basin to STAs and Diversions	198.5	106.3	78.2	72.7	126.6	116.4	11%
EAA Basin							
Flow from Lake to EAA (total from S-2/S-3/S354)	145.1	457.7	447.7	249.3	590.8	378.1	n/a
from EAA to STAs and Diversions	1062.0	516.6	544.9	841.2	868.9	766.8	70%
Water Control District (WCD) Basins through EAA							
East Beach WCD Diversion Basin to STAs and Diversions	16.1	8.7	4.7	14.3	15.3	11.8	1%
ESWCD & Closter Farms Diversion Basins to STAs and Diversions	35.3	18.3	14.6	18.9	25.4	22.5	2%
SFCD/SSDD Diversion Basins to STAs and Diversions	36.2	25.1	23.3	31.0	35.5	30.2	3%
Total Other WCDs to STAs and Diversions	87.6	52.1	42.7	64.3	76.1	64.5	6%
L-8/C-51W/Rustic Ranch Basins							
L-8 to STAs and Diversions	0.6	6.9	0.3	34.4	18.5	12.2	1%
C-51W to STAs and Diversions	28.9	10.2	58.3	85.1	32.1	42.9	4%
Rustic Ranch to STAs	8.8	6.3	6.1	4.4	10.7	7.2	1%
Total from L-8/C-51W/Rustic Ranch to STAs and Diversions	38.3	23.5	64.7	123.8	61.3	62.3	6%
Apportioned Total to STA Inflows and Diversions	1409.8	758.5	826.7	1200.5	1308.2	1100.7	100%
Stormwater Treatment Areas Reported Data							
STA and Diversion Budget							
Total STAs Inflow	1467.8	736.3	712.3	1160.9	1301.8	1075.8	97%
Total Diversions	9.7	12.4	86.2	28.0	17.4	30.8	3%
Total STAs inflows and Diversions	1477.5	748.7	798.6	1189.0	1319.2	1106.6	100%
Total STAs Outflows	1512.3	723.5	730.5	1206.9	1336.0	1101.8	
Total STAs Outflows and Diversions	1522.0	736.0	816.7	1235.0	1353.4	1132.6	
STA Inflows & Diversions Mass Balance Check							
% difference between Historical & Source Apportioned	4.58%	-1.30%	-3.52%	-0.97%	0.84%	0.0	

Note: The actual values are the basis for the apportionment to the sources. However, mass balancing the system results in slight differences due to multiple complexities in tracking all discharges. EAA to STAs and Diversions is a portion of the total EAA runoff reported in Chapter 4 of this volume. Rustic Ranch to STAs included the seepage in WY2014.

Table 7. TP load budgets to STAs and diversion from inflow tributaries (mt/year).

Source Apportioned STA Inflows & Diversions							
	WY2010	WY2011	WY2012	WY2013	WY2014	Five-Year Average	Five-Year % STAs/Div
Lake Okeechobee							
Lake through EAA to STAs and Diversions	2.9	8.8	12.5	9.1	27.6	12.2	7%
Lake through L-8 to STAs and Diversions	0.9	1.7	0.1	2.4	1.2	1.3	1%
Total Lake Okeechobee to STAs and Diversions	3.8	10.5	12.6	11.5	28.8	13.4	8%
C-139 Basin							
from C-139 to EAA STAs and Diversions	4.0	1.6	3.2	0.9	3.1	2.6	2%
from C-139 to STA-5/6 and Diversions	37.8	18.6	12.1	9.5	25.2	20.6	12%
Total C-139 Basin to STAs and Diversions	41.8	20.3	15.3	10.4	28.3	23.2	14%
EAA Basin							
Flow from Lake to EAA (total from S-2/S-3/S354)	17.4	61.0	55.1	28.1	95.8	51.5	n/a
from EAA to STAs and Diversions	165.4	45.3	62.7	138.2	98.3	102.0	60%
Water Control District (WCD) Basins through EAA							
East Beach WCD Diversion Basin to STAs and Diversions	16.3	4.7	2.3	10.9	10.3	8.9	5%
ESWCD & Closter Farms Diversion Basins to STAs and Diversions	6.3	2.7	2.1	3.4	3.4	3.6	2%
SFCD/SSDD Diversion Basins to STAs and Diversions	4.8	3.3	3.2	4.4	4.0	3.9	2%
Total Other WCDs to STAs and Diversions	27.4	10.8	7.7	18.6	17.7	16.4	10%
L-8/C-51W/Rustic Ranch Basins							
L-8 to STAs and Diversions	0.2	1.0	0.0	8.3	4.3	2.8	2%
C-51W to STAs and Diversions	9.4	1.3	6.7	26.1	8.7	10.5	6%
Rustic Ranch to STAs	0.4	0.1	0.1	0.3	0.7	0.3	0%
Total from L-8/C-51W/Rustic Ranch to STAs and Diversions	10.1	2.4	6.9	34.7	13.8	13.6	8%
Apportioned Total to STA Inflows and Diversions	248.4	89.3	105.1	213.5	186.8	168.6	100%
Stormwater Treatment Areas Reported Data							
STA and Diversion Budget							
Total STAs Inflow	262.0	85.9	97.8	198.3	181.1	165.0	97%
Total Diversions	0.6	0.5	7.5	13.1	6.2	5.6	3%
Total STAs inflows and Diversions	262.6	86.4	105.3	211.4	187.2	170.6	100%
Total STAs Outflows	61.1	17.8	17.0	31.9	34.2	32.4	
Total STAs Outflows and Diversions	61.7	18.2	24.5	45.0	40.3	38.0	
STA Inflows & Diversions Mass Balance Check							
% difference between Historical & Source Apportioned	5.42%	-3.36%	0.13%	-1.00%	0.24%	1.15%	

Note: The actual values are the basis for the apportionment to the sources. However, mass balancing the system results in slight differences due to multiple complexities in tracking all discharges. EAA to STAs and Diversions is a portion of the total EAA runoff reported in Chapter 4 of this volume. Rustic Ranch to STAs included the seepage in WY2014.

Table 8. TP FWMC to STAs and diversion from inflow tributaries (ppb or µg/L).

Source Apportioned STA Inflows & Diversions						
	WY2010	**WY2011**	**WY2012**	**WY2013**	**WY2014**	**Five-Year Average**
Lake Okeechobee						
Lake through EAA to STAs and Diversions	120	149	106	90	133	119
Lake through L-8 to STAs and Diversions	183	115	168	119	135	127
Total Lake Okeechobee to STAs and Diversions	130	142	106	95	133	120
C-139 Basin						
from C-139 to EAA STAs and Diversions	138	67	146	53	109	107
from C-139 to STA-5/6 and Diversions	175	174	162	131	197	173
Total C-139 Basin to STAs and Diversions	171	154	159	116	181	162
EAA Basin						
Flow from Lake to EAA (total from S-2/S-3/S-354)	97	108	100	91	131	110
from EAA to STAs and Diversions	126	71	93	133	92	108
Water Control District (WCD) Basins through EAA						
East Beach WCD Diversion Basin to STAs and Diversions	823	444	401	617	545	612
ESWCD & Closter Farms Diversion Basins to STAs and Diversions	143	121	115	144	110	129
SFCD/SSDD Diversion Basins to STAs and Diversions	108	106	113	114	91	106
Total Other WCDs to STAs and Diversions	254	167	146	235	188	206
L-8/C-51W/Rustic Ranch Basins						
L-8 to STAs and Diversions	229	118	122	195	190	184
C-51W to STAs and Diversions	265	106	94	249	220	198
Rustic Ranch to STAs	40	13	12	63	54	38
Total from L-8/C-51W/Rustic Ranch to STAs and Diversions	213	84	86	227	182	176
Apportioned Total to STA Inflows and Diversions	143	95	103	144	116	124
Stormwater Treatment Areas Reported Data						
STA and Diversion Budget						
Total STAs Inflow	145	95	111	138	113	124
Total Diversions	50	31	70	380	287	147
Total STAs inflows and Diversions	144	94	107	144	115	125
Total STAs Outflows	33	20	19	21	21	24
Total STAs Outflows and Diversions	33	20	24	30	24	27
STA Inflows & Diversions Mass Balance Check						
% difference between Historical & Source Apportioned	0.88%	-2.03%	3.53%	-0.04%	-0.60%	0.0

Note: The actual values are the basis for the apportionment to the sources. However, mass balancing the system results in slight differences due to multiple complexities in tracking all discharges. EAA to STAs and Diversions is a portion of the total EAA runoff reported in Chapter 4 of this volume. Rustic Ranch to STAs included the seepage in WY2014.

Table 9. Flow budgets for the Everglades Protection Area (EPA) and inflow tributaries (Kac-ft/year).

	WY2010	WY2011	WY2012	WY2013	WY2014	Five-Year Average
Discharges within the EPA						
WCA-1 (Refuge)						
Into WCA-1[1]	310.2	152.6	170.2	365.1	380.3	275.7
From STA+Diversion	*310.2*	*152.6*	*170.2*	*363.9*	*380.3*	*275.4*
From Eastern Non-ECP	*0.0*	*0.0*	*0.0*	*1.2*	*0.0*	*0.2*
From WCA-1 total	487.8	217.4	16.3	483.7	471.4	335.3
From WCA-1 to WCA-2	*456.4*	*133.6*	*0.0*	*359.5*	*328.5*	*255.6*
Discharge from WCA-1 out of EPA	*31.4*	*83.8*	*16.3*	*124.2*	*143.0*	*79.7*
Net to WCA-1	-177.6	-64.8	154.0	-118.6	-91.2	-59.6
WCA-2						
Into WCA-2	1265.8	466.6	386.1	1069.0	1078.2	853.1
From STA+Diversion	*711.6*	*294.4*	*339.2*	*634.6*	*749.7*	*545.9*
From Eastern Basin(NSID)	*0.0*	*0.0*	*0.0*	*2.0*	*0.0*	*0.4*
From WCA-1 to WCA-2	*456.4*	*133.6*	*0.0*	*359.5*	*328.5*	*255.6*
From WCA-2 total	806.6	407.2	378.0	937.7	959.0	697.7
From WCA-2 to WCA-3	*649.5*	*254.3*	*297.2*	*779.6*	*689.6*	*534.0*
Discharge from WCA-2 out of EPA	*157.1*	*152.8*	*80.9*	*158.2*	*269.4*	*163.7*
Net to WCA-2	459.2	59.5	8.1	131.3	119.2	155.4
WCA-3						
Into WCA-3	1509.6	834.1	959.7	1367.8	1424.6	1219.2
From STA+Diversion	*478.1*	*288.9*	*306.8*	*236.4*	*380.0*	*338.1*
From Eastern Non-ECP	*175.3*	*148.2*	*191.1*	*247.5*	*176.2*	*187.7*
From Western Non-ECP	*221.7*	*117.9*	*135.6*	*98.5*	*178.8*	*150.5*
From WCA-2 to WCA-3	*649.5*	*254.3*	*297.2*	*779.6*	*689.6*	*534.0*
From WCA-3 total	933.4	699.5	502.3	942.9	1082.7	832.2
From WCA-3 to ENP	*668.2*	*474.8*	*426.3*	*813.8*	*867.8*	*650.2*
Discharge from WCA-3 out of EPA	*265.2*	*224.6*	*76.0*	*129.1*	*214.9*	*182.0*
Net to WCA-3	576.2	134.6	457.4	424.9	341.9	387.0
ENP						
Into ENP	1098.8	710.1	596.6	1096.2	1114.4	923.2
From Eastern Non-ECP	*430.6*	*235.2*	*170.3*	*282.4*	*246.6*	*273.0*
From WCA-3 to ENP	*668.2*	*474.8*	*426.3*	*813.8*	*867.8*	*650.2*
Discharge out of ENP	14.931	24.967	12.28	11.30	6.81	14.1
Discharges into EPA from Non-ECP Basins						
Eastern Non-ECP Basin	605.9	383.4	361.4	533.1	422.8	461.3
Western Non-ECP Basin	221.7	117.9	135.6	98.5	178.8	150.5
Discharges Out of EPA[2]						
Discharges for Water Supply and Flood Control	468.6	486.2	185.4	422.8	634.1	439.4

[1] *ACME discharges to WCA-1 were stopped and conveyed to C-51 for treatment in STA-1E.*
[2] *Water supply/flood releases discharged outside of EPA.*

Table 10. TP load budgets for the EPA and inflow tributaries (mt/year).

	WY2010	WY2011	WY2012	WY2013	WY2014	Five-Year Average
Discharges within the EPA						
WCA-1 (Refuge)						
Into WCA-1[1]	21.3	4.7	4.6	26.4	18.9	15.2
From STA+Diversion	*21.3*	*4.7*	*4.6*	*26.2*	*18.9*	*15.1*
From Eastern Non-ECP	*0.0*	*0.0*	*0.0*	*0.2*	*0.0*	*0.0*
From WCA-1 total	18.2	7.2	0.4	16.2	15.8	11.5
From WCA-1 to WCA-2	*16.5*	*4.3*	*0.0*	*11.2*	*11.0*	*8.6*
Discharge from WCA-1 out of EPA	*1.7*	*2.9*	*0.4*	*5.0*	*4.7*	*2.9*
Net to WCA-1	3.1	-2.5	4.3	10.2	3.2	3.6
WCA-2						
Into WCA-2	41.4	10.4	7.8	26.1	26.1	22.3
From STA+Diversion	*23.2*	*5.9*	*7.7*	*14.0*	*15.1*	*13.1*
From Eastern Basin(NSID)	*0.0*	*0.0*	*0.0*	*0.1*	*0.0*	*0.0*
From WCA-1 to WCA-2	*16.5*	*4.3*	*0.0*	*11.2*	*11.0*	*8.6*
From WCA-2 total	10.6	6.2	6.6	10.4	10.6	8.9
From WCA-2 to WCA-3	*8.5*	*4.4*	*4.5*	*8.7*	*8.0*	*6.8*
Discharge from WCA-2 out of EPA	*2.1*	*1.8*	*2.1*	*1.7*	*2.7*	*2.1*
Net to WCA-2	30.8	4.2	1.2	15.7	15.4	13.5
WCA-3						
Into WCA-3	43.7	20.5	27.0	25.2	31.9	29.7
From STA+Diversion	*16.7*	*7.8*	*12.2*	*4.8*	*8.3*	*10.0*
From Eastern Non-ECP	*3.9*	*2.3*	*3.5*	*4.3*	*2.8*	*3.4*
From Western Non-ECP	*16.8*	*6.1*	*7.4*	*7.5*	*12.8*	*10.1*
From WCA-2 to WCA-3	*8.5*	*4.4*	*4.5*	*8.7*	*8.0*	*6.8*
From WCA-3 total	14.3	9.4	7.5	10.7	12.7	10.9
From WCA-3 to ENP	*9.1*	*5.4*	*5.0*	*8.0*	*8.5*	*7.2*
Discharge from WCA-3 out of EPA	*5.2*	*4.0*	*2.5*	*2.7*	*4.2*	*3.7*
Net to WCA-3	29.4	11.1	19.6	14.5	19.2	18.7
ENP						
Into ENP	12.9	8.5	6.7	10.8	10.2	9.8
From Eastern Non-ECP	*3.8*	*3.1*	*1.8*	*2.8*	*1.7*	*2.6*
From WCA-3 to ENP	*9.1*	*5.4*	*5.0*	*8.0*	*8.5*	*7.2*
Discharge out of ENP	0.1	0.1	0.1	0.1	0.0	0.1
Discharges into EPA from Non-ECP Basins						
Eastern Non-ECP Basin	7.6	5.4	5.3	7.4	4.5	6.0
Western Non-ECP Basin	16.8	6.1	7.4	7.5	12.8	10.1
Discharges Out of EPA[2]						
Discharges for Water Supply and Flood Control	9.0	8.8	5.0	9.5	11.6	8.8

[1] *ACME discharges to WCA-1 were stopped and conveyed to C-51 for treatment in STA-1E.*
[2] *Water supply/flood releases discharged outside of EPA.*

Table 11. FWM TP (ppb) for the EPA and inflow tributaries (mt/year).

	WY2010	WY2011	WY2012	WY2013	WY2014	Five-Year Average
Discharges within the EPA						
WCA-1 (Refuge)						
Into WCA-1[1]	56	25	22	59	40	45
From STA+Diversion	*56*	*25*	*22*	*58*	*40*	*45*
From Eastern Non-ECP	*n/a*	*n/a*	*n/a*	*139*	*n/a*	*139*
From WCA-1 total	30	27	18	27	27	28
From WCA-1 to WCA-2	*29*	*26*	*n/a*	*25*	*27*	*27*
Discharge from WCA-1 out of EPA	*43*	*28*	*18*	*32*	*27*	*30*
Net to WCA-1						
WCA-2						
Into WCA-2	27	18	16	20	20	21
From STA+Diversion	*26*	*16*	*18*	*18*	*16*	*20*
From Eastern Non-ECP	*n/a*	*n/a*	*n/a*	*26*	*n/a*	*26*
From WCA-2 total	11	12	14	9	9	10
From WCA-2 to WCA-3	*11*	*14*	*12*	*9*	*9*	*10*
Discharge from WCA-2 out of EPA	*11*	*10*	*21*	*9*	*8*	*10*
From WCA-1 to WCA-2	*29*	*26*	*n/a*	*25*	*27*	*27*
Net to WCA-2						
WCA-3						
Into WCA-3	23	20	23	15	18	20
From STA+Diversion	*28*	*22*	*32*	*17*	*18*	*24*
From Eastern Non-ECP	*18*	*13*	*15*	*14*	*13*	*14*
From Western Non-ECP	*62*	*42*	*44*	*62*	*58*	*55*
From WCA-2 to WCA-3	*11*	*14*	*12*	*9*	*9*	*10*
From WCA-3 total	12	11	12	9	10	11
From WCA-3 to ENP	*11*	*9*	*9*	*8*	*8*	*9*
Discharge from WCA-3 out of EPA	*16*	*14*	*26*	*17*	*16*	*17*
Net to WCA-3						
ENP						
Into ENP	10	10	9	8	7	9
From Eastern Non-ECP	*7*	*11*	*8*	*8*	*6*	*8*
From WCA-3 to ENP	*11*	*9*	*9*	*8*	*8*	*9*
Discharge out of ENP	5	5	5	5	4	5
Discharges into EPA from Non-ECP Basins						
Eastern Non-ECP Basin	10	11	12	11	9	11
Western Non-ECP Basin	62	42	44	62	58	55
Discharges Out of EPA[2]						
Discharges for Water Supply and Flood Control	16	15	22	18	15	16

[1] *ACME discharges to WCA-1 were stopped and conveyed to C-51 for treatment in STA-1E.*
[2] *Water supply/flood releases discharged outside of EPA.*